

Work Order ID 91239

October-03-12 2:45:15 PM

91239

Page 1

Item ID: D6101-003

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Saddle Billet, 7075

Start Date: 03/10/2012 Start Qty: 60.00

60

Cust Item ID:

Required Date: 09/01/2013 Req'd Qty: 60.00

60

Customer:

Reference:

Approvals: Process Plan: MLJDate: 12-10-03 Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
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D6101	Rev B
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100

0.00

100

PURCHASING

Purchasing

Memo

0.00

Purchasing

Issue P/O:

18082

a) Description: Alluminum billet
b) 7.875" x 6.250" x 2.00" thick
c) Tolerance on all dimensions are +0.030"/-0.000"
d) Grain direction along 7.875" length
e) Material: 7075-T7351 (QQ-A-250/12)
f) Material certification required

CY 12/10/05 (60)

110

Receive & Inspect for Damage & Mat'l Certs

0.00

110

Packaging

Memo

0.00

Packaging

Ensure material certification is attached

12/11/05 (60)

Work Order ID 91239

October-03-12 2:45:15 PM

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Page 2

Item ID: D6101-003

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N900040100

Setup Start ***NS1***

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Item Name: Saddle Billet, 7075

Start Date: 03/10/2012 Start Qty: 60.00

60

Cust Item ID:

Required Date: 09/01/2013 Req'd Qty: 60.00

60

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	QC6- Inspect dimensions to drawing	0.00							
120									
QC	Memo	0.00				60	0		DAS 14 2-89
Quality Control	Ensure Material certification comply to Dwg D6101								
130	Identify as per dwg & Stock Location: MAT42	0.00							
130									
Packaging	Memo	0.00				60	0		
Packaging									
140	QC21- Final Inspection - Work Order Release	0.00							
140									
QC	Memo	0.00							
Quality Control									

714F
12-11-22

Picklist Print

October-03-12 2:45:19 PM

Work Order ID: 91239

Parent Item: D6101-003

Parent Item Name: Saddle Billet, 7075

91239

D6101-003

Page 1

Start Date: 03/10/2012

Required Date: 09/01/2013

Start Qty: 60.00

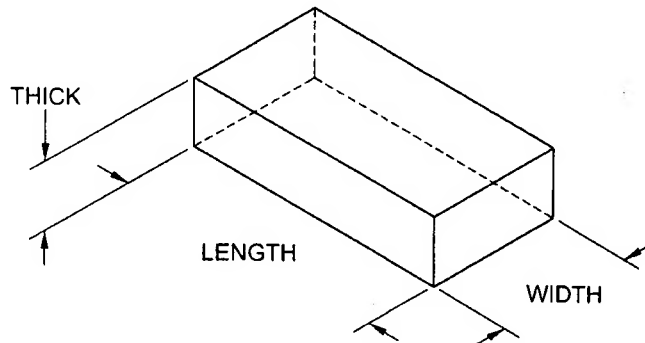
Required Qty: 60.00

Comments: IPP A: 01.05.04New IssueEC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6101-003P *D6101-003P* 7075-T7351 2X6.25X7.875		Purchased	No			110	Each	0.0000	1	60			
										**			

9/2/12/15 (60)

SPECIFICATION CONTROL DRAWING



PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH x WIDTH x THICK (+0.030/-0.000), AND GRAIN DIRECTION AS SHOWN.

TOLERANCES ON ALL DIMENSIONS ARE +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

B ACCEPTABLE SPECIFICATIONS FOR 7075-T7351 ALUMINUM ARE AMS-QQ-A-250/12, QQ-A-250/12, OR ASTM B209

Part No.	Alloy	Length	Width	Thick	Grain Direction
D6101-001	7075-T7351 (QQ-A-250/12)	6.000	6.250	2.000	Along 6.000 Length
D6101-003	7075-T7351 (QQ-A-250/12)	7.875	6.250	2.000	Along 7.875 Length
D6101-005	7075-T7351 (QQ-A-250/12)	5.000	8.250	2.500	Along 5.000 Length
D6101-007	7075-T7351 (QQ-A-250/12)	7.750	8.250	2.500	Along 7.750 Length
D6101-009	7075-T7351 (QQ-A-250/12)	8.700	8.250	2.500	Along 8.700 Length
D6101-011	7075-T7351 (QQ-A-250/12)	9.700	8.250	2.500	Along 9.700 Length
D6101-013	7075-T7351 (QQ-A-250/12)	10.100	8.250	2.500	Along 10.10 Length
D6101-015	7075-T7351 (QQ-A-250/12)	9.450	6.250	2.500	Along 9.450 Length
D6101-017	7075-T7351 (QQ-A-250/12)	6.350	6.250	2.250	Along 6.350 Length

RELEASED
09/07/15/W

SHOP COPY
 RETURN TO
 ENGINEERING
 UNCONTROLLED COPY
 SUBJECT TO AMENDMENT
 WITHOUT NOTICE
 WORK ORDER
 NO. 91239 MCT
 12-10-03

B	ADDED D6101-015/-017, ADD ASTM B209	RF	09.04.23
A	NEW ISSUE	CP	01.03.30
REV.	DESCRIPTION	BY	DATE
DESIGN	CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	<i>[Signature]</i>	DRAWING NO. D6101	
MFG. APPR.	<i>[Signature]</i>	REV. B SHEET 1 OF 1	
APPROVED	<i>[Signature]</i>	TITLE SADDLE BILLET, 7075	
DE APPR.	<i>[Signature]</i>	SCALE NTS	
DATE	09.04.23	COPYRIGHT © 2001 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

**Castle Metals®**

A. M. Castle & Co.

BORDEREAU DE MARCHANDISES

Page 1 of 2

No de Formulaire d'Emballage / Shipment No:1543272

Expédié de / Ship From: A. M. Castle & Co. (Canada) Inc. MONTREAL 835-SELKIRK AVENUE POINTE CLAIRE, QUEBEC H9R 3S2		Vendu à / Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		Expédié à / Ship To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN		Livré à / Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA			
Date d'expédition / Date Shipped 15-NOV-2012		F.O.B. ORIGIN		Modalités de transport / Freight Terms Prepaid		Transporteur / Carrier MANITOULIN		No du Bon de connaissance / BOL No 1543272-2	

Détails d'expédition / Shipment Details	Destination finale / Final Destination Branch - MON
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N° de commande / Order No		N° de ligne Line No	N° d'article / Item No		Description		
2520430		1	752237.MO		2.0000.PL.7075.T7351.ALUMINUM.USI.48.5000.144.5000 CUT RECTANGLE TO 6.25 IN () X 7.875 IN () SPECIFICATIONS: SHIP JANUARY 3RD ONLY QQ-A-250/12		
N° de bon de commande / Purchase Order No		Nbre de pièces / Part Number			Qté commandée / Ordered Qty		Qté Facturée / Invoice Qty
18082		YOUR ITEM NUMBER: D6101-003			60.00 PCS		60.00 PCS
Détails / Details		SHIP JANUARY 3RD ONLY QQ-A-250/12					
N° de livraison / Delivery No :	Usine / Mill	No de coulée / Heat Number	Code méc / Mech Id	Pièce s / PCS	Largeur (Pouce)/ Width (IN)	Longueur (Pouce)/ Length (IN)	Qté expédiée/ Shipped Qty(LBS)
118154126	MATERIALS TECHNOLOG Y SOLUTIONS	651951		60			609.6507

Ces marchandises/technologies sont sujettes aux règlements de l'Export Administration et du département d'état des Etats-Unis. Si elles ont été/sont exportées, elles doivent se conformer à ces règlements. Toute modification du contrat de transport contraire aux lois des États-Unis est interdite.

These commodities/technologies are subject to US Export Administration & US State Dept. Regulations and, if intended for export, were/are exported thereunder. Diversion contrary to US Law is Prohibited.

Nous certifions par la présente que le matériel couvert par cette certification est conforme aux spécifications susmentionnées et aux exigences applicables pour le matériel, y compris toute spécification faisant partie de la description. Les rapports d'

These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to US law prohibited.

Date Printed: 15-NOV-2012 02:18:15 PM



Castle Metals®

A. M. Castle & Co.

BORDEREAU DE MARCHANDISES

Page 2 of 2

essai sont archivés pour fins de consultation. Toute requête concernant du matériel défectueux sera rejetée à moins qu'elle ne soit faite par écrit à A. M. Castle & Co. dans les 60 jours suivant la livraison. Le matériel coupé sur mesure ou coupé par le client ne peut être retourné pour crédit.
We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description.
Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

Ce matériel a été reçu et inspecté par
Reviewed by Authorized Castle Metals Representative:

Date:

Name:

I

CERTIFIED INSPECTION REPORT

Alcoa Inc.

DAVENPORT WORKS 4879 State Street Bettendorf, IA 52722

We hereby certify that the material covered by this certificate has been inspected with, and has been found to meet the applicable requirements described therein, including any specifications forming a part of the description and the samples representative of the material met the composition limits and had the mechanical properties shown on the face of this sheet.

The test report shall not be reproduced or accepted in full without the written approval of the Quality Department. No alteration, addition or other change is authorized to be made to this certificate. The recording of false, fictitious, or otherwise fraudulent statements or entries on this certificate by any recipient may be punished as a felony under applicable law.

Per

Rob Wood

Rob Wood

Director of Manufacturing Davenport Works

Teresa Thom

Teresa Thom
Quality Assurance Manager

1462476

Ship Date

0

B.I. No.

Invoice No.

Ship From:

RIVERDALE, IA.

Alcoa No. Item

2012-10-12

7428448

00000

1000417340-4

DP-17340-4

P.O. No./Govt Contract No.

Customer

Alcoa Item

039050 Lot# 4

HADCO METAL TRADING CO4101551921

Page 2 of 2

COR: D164164.34 -Specification Limits (cont.)

T7351 Elec. Cond. (EC) & MIN 38.0 PCT

Chemical Composition

	SI	FE	CU	MN	MG	CR	ZN	TI	Other	Other
Max	0.40	0.50	2.0	0.30	2.9	0.28	5.1	0.20	0.05	0.15
Min			1.2		2.1	0.18	5.1			

Alloy 7075

Lot# 651951

- Mechanical, Physical, Metallography, Quantometer Results

REMAIN

Temp	Dir	No. of Test	UTS KSI	TYS KSI	ELAD PCT
T7351	Long Transv.	3	72.2	61.6	10.7
			72.3	61.6	10.8
			72.1	61.4	10.7

T7351 Elect Cond & IACS 40.1 40.1 40.1 PCT

Cast Number

Chemical - GES

SI	FE	CU	MN	MG	CR	ZN	TI
Actuals	0.07	0.28	1.6	0.04	2.5	0.19	5.6

This material was melted in the United States or a Qualifying Country [REF DEARS 225.872.11a1], it was manufactured in the United States

DAS
14
0-89 12/11/21

Castle Metals Mon

HEAT NUMBER 651951
 MECHANICAL ID _____
 ITEM CODE 752237.130
 LOT NUMBER 2781933 MON
 PO NUMBER 17268
 RECEIPT DATE 11-13-12
 SUPPLIER MTR
 SPECIFICATION AMS-QQ-A-250/12
 LCS _____
 COMMENT _____
 APPROVED g

CERTIFIED INSPECTION REPORT

Alcoa Inc.

DAVENPORT WORKS 4879 State Street Bettendorf, IA 52722

Ship From: RIVERDALE, IA

1442476

Ship Date

B.L. No.

Invoice No.

Alcoa No.	Item
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1000417340-4

DP-17340-4

P.O. No./Govt Contract No.

Customer

Alcoa Item

039050 Ln# 4

HADSC METAL TRADING G041015519821

We hereby certify that the material covered by this certificate has been supplied with, and has been tested in meeting, applicable requirements specified therein, including any specific testing requirements of the applicable specification, and samples representative of the material met the composition limits and had the mechanical properties shown on the face of this certificate.

This test report shall not be reproduced, except in full, without the written approval of the Quality Department. No alteration, addition or other change is authorized to be made to this certificate. The recording of test results, or otherwise falsifying statements or entries on this certificate by any applicant may be punished as a felony under applicable law.

Per _____

Robt Woodall

Rob Wilson

Director of Manufacturing Davenport Works

62

Technical Issues

Quality Assurance Manager

Page 1 of 2

[illegible]

2.0 IN TH (1.055 - .055) X 48.5 IN W (4.3125 -
0.000) X 144.5 IN IN (4.5 - 8.0) CAT D 164164 (N) A/T 7075-
77351 RECTANGLE MILL FINISH, US1 3MM LEAD ZONE REQ'D BOTH SIDES,
SAND. AMS-00-A-230/12 IS 2007 AMS-STD-
2159 IS 2010 EXT MRR AMS4074 REV J EKC MRR
ASTM208 REV 10 ASTM594 REV 09 BSS7055
REV A EKC MRC ENCL59 REV T BS21211 REV J
(MARKED) KRAFT PAPER INTERLEAVED
MAX GROSS SKID WGT: 4900 LB QUAN TOL +/-
40 ± US1 CL A 1 Y3 COR DL64164 REV 34 CUST REQ 12-09-
28 *** W/E 12-10-11 ***

Num	Package Ticket	Lot	Weight	Quantity	UOM	Inspector Clock Numbers
1	458063	651951	1431	1	PC	
2	458065	651951	2860	2	PC	
3	458067	651951	2868	2	PC	
			7153	5		

14 of 12/11/21

Notes for CDR: DI64164.34

COR: D164164-34 /Specification
THIS MATERIAL HAS BEEN ULTRASONICALLY INSPECTED FULLY IMMERSION - TYPE I.
PRODUCT PRODUCED TO THE REQUIREMENTS OF MIL-STD-2154 ALSO MEET THE REQUIREMENTS OF AMS-STD-2154. PRODUCT PRODUCED TO THE
REQUIREMENTS OF AMS-STD-2154 ALSO MEET THE REQUIREMENTS OF MIL-STD-2154.
PRODUCT PRODUCED AND MARKED TO THE REQUIREMENTS OF AMS-QQ-A-250/12 ALSO MEETS THE REQUIREMENTS OF QQ-A-250/12F. PRODUCT
PRODUCED AND MARKED TO THE REQUIREMENTS OF QQ-A-250/12 F ALSO MEETS THE REQUIREMENTS OF AMS-QQ-A-250/12.

COR: D164164-34 -Specification Limited

Type	Dir	UTS	TYS	EL4D
T7351	Long Transv.	KSI	KSI	PCT
	Max		68.0	
	Min	69.0	57.0	6